Attorney's Docket No.: 10559-302US1 / P9623US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Gilbert Wolrich et al. Art Unit: 2189

Serial No.: 10/070,006 Examiner: Behzad Peikari

Filed: February 28, 2002 Conf. No.: 5728

Title : DOUBLE SHIFT INSTRUCTION FOR MICRO ENGINE USED IN

MULTITHREADED PARALLEL PROCESSOR ARCHITECTURE

MAIL STOP RCE

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Applicant requests consideration of the references listed on the attached PTO-1449 form.

Applicant has previously provided copies of all the cited references and thus applicant has not enclosed copies of these references with this communication.

As requested by the examiner, applicant has listed the U.S. patents and publications separately from the five unpublished references.

The examiner also requested "for the five unpublished U.S. applications, other information including office actions, affidavits, etc. that demonstrate the relevance that may be required" (Notice of Allowability, page 2, paragraph 1(C)). Applicant notes that, in accordance with MPEP 609.01(B)(2)(d), all information concerning relevancy, including office actions, affidavits, etc., for the references identified as AR through AV (located on the first page of the attached PTO Forms 1449), can be found on the U.S. Patent and Trademark Office's PAIR system.

The examiner stated:

the reference JP 59111533 is not in accordance with 37 CFR 1.98(a)(3)(i). It has no proper concise explanation of relevance because the English language abstract has been translated in a manner replete with errors to the extent that it is confusing and cannot be properly understood. (Notice of Allowability, page 2, paragraph 1(B))

Applicant notes that MPEP 609.A(3) states, in relation to the requirement to provide a concise explanation of relevance for non-English language information, "[s]ubmission of an English language abstract may fulfill the requirement for a concise explanation." Although Japanese reference no. JP59111533 includes an English Abstract, and thus a concise explanation of the relevance of this reference does not have to be provided by applicant, for the sake of expediency, the undersigned will attempt to clarify the abstract for the examiner. To the best of the undersigned's understanding of the abstract of the reference, the reference is directed to an arrangement that enables speedy performance of commands for controlling arithmetic-device operations by causing data required in the course of

Applicant: Gilbert Wolrich et al. Attorney's Docket No.: 10559-302US1 / P9623US

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executing a current command to be read from a memory location while resultant data from operation of the arithmetic device for a preceding command is stored into a destination memory location.

The examiner noted that the publication "What is Hart" by Bowden was not listed on an IDS. Applicant has accordingly identified this publication on the attached PTO-1449 form. For the examiner convenience, the attached PTO-1449 form includes all the references previously submitted, including those considered and initialed by the examiner. Applicant is not including copies of these references as it is applicant's understanding that the examiner already has copies of these references.

Should there be any further problems or concerns, the examiner is invited to call the undersigned attorney at 617-368-2105 to resolve any outstanding issues that may still exist.

This filing is being made with the filing of a Request for Continued Examination.

No fee is believed due. Please apply any charges to deposit account 06-1050, referencing the attorney docket number shown above.

Respectfully submitted,

Date:

PTO Customer No. 20985

Fish & Richardson P.C.

Telephone: (617) 542-5070 Facsimile: (617) 542-8906

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Ido Rabinovitch Reg, No. L0080

| Substitute Form PTO-1449 (Modified) | U.S. Department of Commerce Patent and Trademark Office | Attorney's Docket No. 10559-302US1 | Application No. 10/070,006 | |
|-------------------------------------|--|---------------------------------------|----------------------------|--|
| (Use several sheets if necessary) | | Applicant Gilbert Wolrich et al. | | |
| | | Filing Date | Group Art Unit | |
| (37 CFR §1.98(b)) | | February 28, 2002 | 2189 | |

| | U.S. Patent Documents | | | | | | |
|------------------|-----------------------|--------------------|---------------------|---------------------|-------|----------|----------------------------|
| Examiner Initial | Desig. ID | Document Number | Publication Date | Patentee | Class | Subclass | Filing Date If Appropriate |
| | AA | 5,023,023 | 05/10/1977 | Bourrez et al. | | | |
| | AB | 5,113,516 | 05/12/1992 | Johnson | | | |
| | AC | 5,363,448 | 11/08/1994 | Koopman, Jr. et al. | | | |
| | AD | 5,436,626 | 07/25/1995 | Fujiwara et al. | | | |
| | AE | 5,600,812 | 02/04/1997 | Park | | | |
| | AF | 5,652,583 | 07/29/1997 | Kang | | | |
| | AG | 5,717,760 | 02/10/1998 | Satterfield | | | |

| | Foreig | n Patent Doc | uments or P | ublished Foreign | Patent A | Application | ns | |
|-----------------|--------|--------------|-------------|------------------|----------|-------------|-------|---------|
| Examiner | Desig. | Document | Publication | Country or | | | Trans | slation |
| Initial | ID | Number | Date | Patent Office | Class | Subclass | Yes | No |
| | AH | WO 01/16697 | 03/2001 | WIPO | | | | |
| | AI | WO 01/16698 | 03/2001 | WIPO | | | | |
| 1 2 112 313 117 | AJ | WO 01/16702 | 03/2001 | WIPO | | | | |
| | AK | WO 01/16703 | 03/2001 | WIPO | | | | |
| | AL | WO 01/16713 | 03/2001 | WIPO | | | | |
| | AM | WO 01/16714 | 03/2001 | WIPO | | | | |
| | AN | WO 01/16715 | 03/2001 | WIPO | | | | |
| | AO | WO 01/16716 | 03/2001 | WIPO | | | | |
| | AP | WO 01/16722 | 03/2001 | WIPO | | | | |
| | AQ | WO 01/18646 | 03/2001 | WIPO | | | | |

| | Other Documents (include Author, Title, Date, and Place of Publication) | | | | | |
|---------------------|---|--|--|--|--|--|
| Examiner Initial | Desig. ID | Document | | | | |
| | AR | Wolrich et al. U.S. Application Serial No. 09/473,571, filed 12/28/1999. | | | | |
| | AS | Wolrich et al. U.S. Application Serial No. 09/475,614, filed 12/30/1999. | | | | |
| | AT | Wolrich et al. U.S. Application Serial No. 09/476,303, filed 12/30/1999. | | | | |
| | AU | Adiletta et al. U.S. Application Serial No. 09/387,109, filed 8/31/1999. | | | | |

| Examiner Signature | Date Considered |
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| EXAMINER: Initials citation considered. Draw line through citation if no | t in conformance and not considered. Include copy of this form with |
| next communication to applicant. | |

Substitute Disclosure Form (PTO-1449)

| Substitute Form PTO-1449 (Modified) | U.S. Department of Commerce Patent and Trademark Office | Attorney's Docket No. 10559-302US1 | Application No. 10/070,006 | |
|-------------------------------------|--|---------------------------------------|----------------------------|--|
| | closure Statement pplicant | Applicant Gilbert Wolrich et al. | | |
| (Use several sheets if necessary) | | Filing Date February 28, 2002 | Group Art Unit 2189 | |

| | Other D | ocuments (include Author, Title, Date, and Place of Publication) |
|---------------------------------------|---------|--|
| Examiner Initial | Desig. | Document |
| | AV | Bernstein et al. U.S. Application Serial No. 09/747,019, filed 12/21/2000. |
| 4 | AW | Romilly Bowden. "What is HART?" Romilly's HART® and Fieldbus Web Site, 1997. <u> <u> <u> <u> <u> <u> <u> <u< td=""></u<></u></u></u></u></u></u></u> |
| | AX | |
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| | AZ | |
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| EXAMINER: Initials citation considered. Draw line through citation if n | ot in conformance and not considered. Include copy of this form with |
| next communication to applicant. | |
| | Substitute Disclosure Form (PTO-1449) |

| Substitute Form PTO-1449 (Modified) | · · · · · · · · · · · · · · · · · · · | | Application No. 10/070,006 | |
|-------------------------------------|---------------------------------------|----------------------------------|----------------------------|--|
| | closure Statement pplicant | Applicant Gilbert Wolrich et al. | | |
| (Use several si | heets if necessary) | Filing Date February 28, 2002 | Group Art Unit 2186 | |

| | Foreig | n Patent Doc | uments or P | ublished Foreign | Patent / | Application | ns | |
|----------|--------|--------------|-------------|------------------|----------|-------------|-------|---------|
| Examiner | Desig. | Document | Publication | Country or | | | Trans | slation |
| Initial | ID D | Number | Date | Patent Office | Class | Subclass | Yes | No |
| | AA | WO 01/50679 | 07/12/2001 | WIPO | | | | |
| | AB | WO 01/50247 | 07/12/2001 | WIPO | | | | |
| | AC | WO 01/48619 | 07/05/2001 | WIPO | | | | |
| | AD | WO 01/48606 | 07/05/2001 | WIPO | | | | |
| | AE | WO 01/48599 | 07/05/2001 | WIPO | | | | |
| | AF | WO 01/48596 | 07/05/2001 | WIPO | | | | |
| | AG | WO 01/41530 | 06/14/2001 | WIPO | | | | |
| | AH | WO 01/16782 | 03/08/2001 | WIPO | | | | |
| | AI | WO 01/16770 | 03/08/2001 | WIPO | | | | |
| | AJ | WO 01/16769 | 03/08/2001 | WIPO | | | | |
| | AK | WO 01/16718 | 03/08/2001 | WIPO | | | | |
| | AL | WO 01/16758 | 03/08/2001 | WIPO | | | | |
| | AM | WO 01/15718 | 03/08/2001 | WIPO | | | | |
| | AN | WO 97/38372 | 10/16/1997 | WIPO | | | | |
| | AO | WO 94/15287 | 07/07/1994 | WIPO | | | | |
| | AP | EP 0 809 180 | 11/26/1997 | Europe | | | | |
| | AQ | EP 0 745 933 | 12/04/1996 | Europe | | | | |
| | AR | EP 0 633 678 | 01/11/1995 | Europe | | | | |
| | AS | EP 0 464 715 | 01/08/1992 | Europe | | | | |
| | AT | EP 0 379 709 | 08/01/1990 | Europe | | | | |
| | AU | 59111533 | 06/27/1984 | Japan | | | | |

| , | Other Documents (include Author, Title, Date, and Place of Publication) | | | | | |
|---------------------|---|--|--|--|--|--|
| Examiner Initial | Desig. ID | Document | | | | |
| | AV | Agarwal et al., "April: A Processor Architecutre for Multiprocessing," Proceedings of the 17 th Annual International Symposium on Computer Architecutre, IEEE, pp. 104-114. | | | | |
| | AW | Byrd et al., "Multithread Processor Architectures," <i>IEEE Spectrum</i> , Vol. 32, No. 8, New York, 1 August 1995, pp. 38-46. | | | | |
| | AX | Doyle et al., <i>Microsoft Press Computer Dictionary</i> , 2 nd ed., Microsoft Press, Redmond, Washington, USA, 1994, p. 326. | | | | |

Examiner Signature

Date Considered

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with

| Substitute Form PTO-1449 (Modified) | • | | Application No. 10/070,006 | |
|---|---|----------------------------------|----------------------------|--|
| Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b)) | | Applicant Gilbert Wolrich et al. | | |
| | | Filing Date February 28, 2002 | Group Art Unit 2186 | |

| | Other D | ocuments (include Author, Title, Date, and Place of Publication) |
|---------------------|---------|--|
| Examiner Initial | Desig. | Document |
| miliai | AY | Farkas et al., "The multicluster architecture: reducing cycle time through partitioning," IEEE, vol. 30, December 1997, pp. 149-159. |
| | AZ | Fillo et al., "The M-Machine Multicomputer," IEEE Proceedings of MICRO-28, 1995, pp. 146-156. |
| | AAA | Gomez et al., "Efficient Multithreaded User-Space Transport for Network Computing: Design and Test of the TRAP Protocol," <i>Journal of Parallel and Distributed Computing</i> , Academic Press, Duluth, Minnesota, USA, vol. 40, no. 1, 10 January 1997, pp. 103-117. |
| | ABB | Haug et al., "Reconfigurable hardware as shared resource for parallel threads," IEEE Symposium on FPGAs for Custom Computing Machines, 1998. |
| | ACC | Hauser et al., "Garp: a MIPS processor with a reconfigurable coprocessor," Proceedings of the 5 th Annual 1EEE Symposium on Field-Programmable Custom Computing Machines, 1997. |
| | ADD | Hennessy et al., "Computer Organization and Design: The Hardware/Software Interface," Morgan Kaufman Publishers, pp. 476-482 (1998). |
| | AEE | Hyde, R., "Overview of Memory Management," Byte, vol. 13, no. 4, 1998, pp. 219-225. |
| | AFF | Keckler et al., "Exploiting fine grain thread level parallelism on the MIT multi-ALU processor," IEEE, June 1998. |
| | AGG | Litch et al., "StrongARMing Portable Communications," IEEE Micro, 1998, pp. 48-55. |
| | АНН | Mendelson et al., "Design Alternatives of Multithreaded Architecture," <i>International Journal of Parallel Programming</i> , vol. 27, no. 3, Plenum Press, New York, USA, June 1999, pp. 161-193. |
| | AII | Paver et al., "Register Locking in Asynchronous Processor Computer Design: VLSI Processors," ICCD '92 Proceedings, IEEE 1992 International Conference, 1992, pp. 385-398. |
| | AJJ | Schmidt et al., "The Performance of Alternative Threading Architectures for Parallel Communication Subsystems," Internet Document, Online!, 13 November 1998. |
| | AKK | Thistle et al., "A Processor Architecture for Horizon," IEEE, 1998, pp. 35-41. |
| | ALL | Tremblay et al., "A Three Dimensional Register File for Superscalar Processors," IEEE Proceedings of the 28th Annual Hawaii International Conference on System Sciences, 1995, pp. 191-201. |
| | AMM | Trimberger et al, "A time-multiplexed FPGA," Proceedings of the 5 th Annual IEEE Symposium on Field-Programmable Custom Computing Machines," 1998. |
| | ANN | Turner et al., "Design of a High Performance Active Router," Internet Document, Online, 18 March 1999. |
| | AOO | Vibhatavanijt et al., "Simultaneous Multithreading-Based Routers," Proceedings of the 2000 International Conference of Parallel Processing, Toronto, Ontario, Canada, 21-24 August 2000, pp. 362-359. |
| | APP | Waldspurger et al., "Register Relocation: Flexible Contents for Multithreading," Proceedings of the 20th Annual International Symposium on Computer Architecture," 1993, pp. 120-130 |
| | AQQ | Wazlowski et al., "PRSIM-II computer and architecture," IEEE Proceedings, Workshop on FPGAs for Custom Computing Machines, 1993. |
| | ARR | Wadler. "The Concatenate Vanishes". University of Glasgow, November 1989, pp. 1-7. |
| | ASS | Schmidt et al. "The Performance of Alternative Threading Architectures for Parallel Communication Subsystems". Submitted to Journal of Parallel and Distributed Computing, pp. 1-19. |

| | Examiner Signature | Date Considered |
|---|--|--|
| | | |
| 1 | EXAMINER: Initials citation considered. Draw line through citation if no | ot in conformance and not considered. Include copy of this form with |
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|-------------------------------------|--|--------------------------------------|----------------------------|--|
| 1 | closure Statement pplicant | Applicant Gilbert Wolrich et al. | | |
| | heets if necessary) | Filing Date February 28, 2002 | Group Art Unit 2186 | |

| | Other Documents (include Author, Title, Date, and Place of Publication) | | | | | |
|---------------------|---|--|--|--|--|--|
| Examiner Initial | Desig. ID | Document | | | | |
| | ATT | Moors, et al. "Cascading Content - Addressable Memories. IEEE 12(3):56-66, June 1992. | | | | |
| | AUU | "HART Field Communication Protocol – Application Guide". HART Communications Foundation, pp. 1-74, 1999. | | | | |

Examiner Signature Date Considered

Application No. Attorney's Docket No. U.S. Department of Commerce Substitute Form PTO-1449 (Modified) Patent and Trademark Office 10/070,006 10559-302US1 Applicant **Information Disclosure Statement** Gilbert Wolrich et al. by Applicant (Use several sheets if necessary) Group Art Unit Filing Date 2186 February 28, 2002

| | | <u> </u> | | Documents | | | I = n |
|---------------------|-----------|--------------------|---------------------|----------------------|-------|----------|----------------------------|
| Examiner Initial | Desig. ID | Document Number | Publication Date | Patentee | Class | Subclass | Filing Date If Appropriate |
| | AA | 20020053017 | 05/02/2002 | Adiletta et al. | | | |
| | AB | 20020056037 | 05/09/2002 | Wolrich et al. | | | |
| | AC | 20030041228 | 02/27/2003 | Rosenbluth et al. | | | |
| | AD | 20030145159 | 07/31/2003 | Adiletta et al. | | | |
| | AE | 20030191866 | 10/09/2003 | Wolrich et al. | | | |
| | AF | 20040039895 | 02/26/2004 | Wolrich et al. | | | |
| | AG | 20040054880 | 03/18/2004 | Bernstein et al. | | | |
| | АН | 20040071152 | 04/15/2004 | Wolrich et al. | | | |
| | AI | 20040073728 | 04/15/2004 | Wolrich et al. | | | |
| | AJ | 20040073778 | 04/15/2004 | Adiletta et al. | | | |
| | AK | 20040098496 | 05/20/2004 | Wolrich et al. | | | |
| - | AL | 20040109369 | 06/10/2004 | Wolrich et al. | | | |
| | AM | 20040205747 | 10/14/2004 | Bernstein et al. | | | |
| | AN | 3373408 | 03/12/1968 | Ling | | | |
| <u> </u> | AO | 3478322 | 11/11/1969 | Evans | | | |
| | AP | 3792441 | 02/12/1974 | Wymore et al. | | | |
| | AQ | 3913074 | 10/14/1975 | Homberg et al. | 7 | | |
| | AR | 3940745 | 02/24/1976 | Sajeva | | | |
| | AS | 4130890 | 12/19/1978 | Adam | | | |
| | AT | 4392758 | 07/12/1983 | Bowles et al. | | | |
| | AU | 4400770 | 08/23/1983 | Chan et al. | | | |
| | AV | 4514807 | 04/30/1985 | Nogi | | | |
| | AW | 4523272 | 06/11/1985 | Fukunaga et al. | | | |
| | AX | 4724521 | 02/09/1988 | Carron et al. | | | |
| | AY | 4745544 | 05/17/1988 | Renner et al. | | | |
| | AZ | 4777587 | 10/11/1988 | Case et al. | | | |
| · · · · · · | AAA | 4866664 | 09/12/1989 | Burkhardt Jr. et al. | | | |

| Examiner Signature | Date Considered |
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| EXAMINER: Initials citation considered. Draw line through citation if no | t in conformance and not considered. Include copy of this form with |

next communication to applicant.

(37 CFR §1.98(b))

U.S. Department of Commerce Patent and Trademark Office Attorney's Docket No. 10559-302US1

Application No. 10/070,006

Information Disclosure Statement by Applicant

Applicant
Gilbert Wolrich et al.

(Use several sheets if necessary)

Filing Date Group Art Unit February 28, 2002 2186

(37 CFR §1.98(b))

| U.S. Patent Documents | | | | | | | |
|-----------------------|-----------|--------------------|---------------------|----------------------|-------|----------|----------------------------|
| Examiner Initial | Desig. ID | Document Number | Publication Date | Patentee | Class | Subclass | Filing Date If Appropriate |
| | ABB | 5073864 | 12/17/1991 | Methvin et al. | | | |
| | ACC | 5140685 | 08/18/1992 | Sipple et al. | | | |
| | ADD | 5142683 | 08/25/1992 | Burkhardt Jr. et al. | | | |
| | AEE | 5155831 | 10/13/1992 | Emma et al. | | | |
| <u> </u> | AFF | 5155854 | 10/13/1992 | Flynn et al. | | | |
| | AGG | 5168555 | 12/01/1992 | Byers et al. | | | |
| | АНН | 5173897 | 12/22/1992 | Schrodi et al. | | | |
| | AII | 5255239 | 10/19/1993 | Taborn et al. | | | |
| | AJJ | 5263169 | 11/16/1993 | Genusov et al. | | | |
| | AKK | 5347648 | 09/13/1994 | Stamm et al. | | | |
| | ALL | 5357617 | 10/18/1994 | Davis et al. | | | |
| | AMM | 5367678 | 11/22/1994 | Lee et al. | | ` | |
| | ANN | 5390329 | 02/14/1995 | Gaertner et al. | | | |
| ••• | AOO | 5392391 | 02/21/1995 | Caulk Jr. et al. | | | |
| | APP | 5392411 | 02/21/1995 | Ozaki | | | |
| | AQQ | 5392412 | 02/21/1995 | McKenna | | | |
| | ARR | 5404464 | 04/04/1995 | Bennett | | | |
| | ASS | 5404482 | 04/04/1995 | Stamm et al. | | | |
| | ATT | 5428809 | 06/27/1995 | Coffin et al. | | | |
| | AUU | 5432918 | 07/11/1995 | Stamm | | | |
| | AVV | 5442756 | 08/15/1995 | Grochowski et al. | | | |
| | AWW | 5448702 | 09/05/1995 | Garcia Jr. et al. | | | |
| | AXX | 5450351 | 09/12/1995 | Heddes | | | |
| | AYY | 5452437 | 09/19/1995 | Richey et al. | | | |
| | AZZ | 5459842 | 10/17/1995 | Begun et al. | | | |
| | AAAA | 5463625 | 10/31/1995 | Yasrebi | | | |
| | ABBB | 5467452 | 11/14/1995 | Blum et al. | | | |

| Examiner Signature | Date Considered |
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U.S. Department of Commerce Patent and Trademark Office Attorney's Docket No. 10559-302US1

Application No. 10/070,006

Information Disclosure Statement
by Applicant
(Use several sheets if necessary)

Applicant
Gilbert Wolrich et al.

February 28, 2002

Filing Date

Group Art Unit 2186

(37 CFR §1.98(b))

| U.S. Patent Documents | | | | | | | |
|---------------------------------------|-----------|--------------------|---------------------|---------------------|-------|----------|----------------------------|
| Examiner Initial | Desig. ID | Document Number | Publication Date | Patentee | Class | Subclass | Filing Date If Appropriate |
| | ACCC | 5481683 | 01/02/1996 | Karim | | | |
| | ADDD | 5487159 | 01/23/1996 | Byers et al. | | | |
| | AEEE | 5517628 | 05/14/1996 | Morrison et al. | | | |
| | AFFF | 5517648 | 05/14/1996 | Bertone et al. | | | |
| | AGGG | 5542070 | 07/30/1996 | LeBlanc et al. | | | |
| | АННН | 5542088 | 07/30/1996 | Jennings Jr. et al. | | | |
| | AIII | 5544236 | 08/06/1996 | Andruska et al. | | | |
| | AJJJ | 5550816 | 08/27/1996 | Hardwick et al. | | | |
| | AKKK | 5557766 | 09/17/1996 | Takiguchi et al. | | | |
| | ALLL | 5568617 | 10/22/1996 | Kametani | | | |
| | AMMM | 5574922 | 11/12/1996 | James | | | |
| | ANNN | 5574939 | 11/12/1996 | Keckler et al. | | | |
| | A000 | 5592622 | 01/07/1997 | Isfeld et al. | | | |
| | APPP | 5606676 | 02/25/1997 | Grochowski et al. | | | |
| | AQQQ | 5613071 | 03/18/1997 | Rankin et al. | | | |
| | ARRR | 5613136 | 03/18/1997 | Casavant et al. | | | |
| | ASSS | 5623489 | 04/22/1997 | Cotton et al. | | | |
| | ATTT | 5627829 | 05/06/1997 | Gleeson et al. | | | |
| · · · · · · · · · · · · · · · · · · · | AUUU | 5630130 | 05/13/1997 | Perotto et al. | | | |
| | AVVV | 5644623 | 07/01/1997 | Gulledge | | | |
| , , | AWWW | 5649157 | 07/15/1997 | Williams | | | |
| | AXXX | 5659687 | 08/19/1997 | Kim et al. | | | |
| | AYYY | 5659722 | 08/19/1997 | Blaner et al. | | | |
| | AZZZ | 5680641 | 10/21/1997 | Sidman | | | |
| | AAAAA | 5689566 | 11/18/1997 | Nguyen | | | |
| | ABBBB | 5692167 | 11/25/1997 | Grochowski et al. | | | |
| · · · · · · · · · · · · · · · · · · · | ACCCC | 5699537 | 12/16/1997 | Sharangpani et al. | | | |

| Exam | iner | Signa | ture |
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Date Considered

U.S. Department of Commerce Patent and Trademark Office

Attomey's Docket No. 10559-302US1

Application No. 10/070,006

Information Disclosure Statement by Applicant

(Use several sheets if necessary)

Gilbert Wolrich et al.

Applicant

(37 CFR §1.98(b))

Group Art Unit Filing Date 2186 February 28, 2002

| U.S. Patent Documents | | | | | | | |
|---------------------------------------|-----------|--------------------|---------------------|----------------------|-------|----------|----------------------------|
| Examiner Initial | Desig. ID | Document Number | Publication Date | Patentee | Class | Subclass | Filing Date If Appropriate |
| | ADDDD | 5717898 | 02/10/1998 | Kagan et al. | | | |
| | AEEEE | -5721870 | 02/24/1998 | Matsumoto | | | |
| | AFFFF | 5742587 | 04/21/1998 | Zornig et al. | | | |
| | AGGGG | 5742782 | 04/21/1998 | Ito et al. | | | |
| | АНННН | 5742822 | 04/21/1998 | Motomura | | | |
| | AIIII | 5745913 | 04/28/1998 | Pattin et al. | | | |
| · · · · · · · · · · · · · · · · · · · | AJJJJ | 5751987 | 05/12/1998 | Mahant-Shetti et al. | | | |
| | AKKKK | 5761507 | 06/02/1998 | Govett | | | |
| | ALLLL | 5761522 | 06/02/1998 | Hisanaga et al. | | | |
| | AMMMM | 5781774 | 07/14/1998 | Krick | | | |
| | ANNNN | 5784649 | 07/21/1998 | Begur et al. | - | | |
| | A0000 | 5784712 | 07/21/1998 | Byers et al. | | | |
| | APPPP | 5796413 | 08/18/1998 | Shipp et al. | | | |
| | AQQQQ | 5797043 | 08/18/1998 | Lewis et al. | | | |
| | ARRR | 5809235 | 09/15/1998 | Sharma et al. | | | |
| | ASSSS | 5809530 | 09/15/1998 | Samra et al. | | - | |
| | ATTTT | 5812839 | 09/22/1998 | Hoyt et al. | | | |
| | AUUUU | 5812868 | 09/22/1998 | Moyer et al. | - | | |
| | AVVVV | 5828746 | 10/27/1998 | Ardon | | | |
| | AWWWW | 5828863 | 10/27/1998 | Barrett et al. | | | |
| | AXXXX | 5832215 | 11/03/1998 | Kato et al. | | | |
| | AYYYY | 5835755 | 11/10/1998 | Stellwagen Jr. | | | |
| | AZZZZ | 5854922 | 12/29/1998 | Gravenstein et al. | | | |
| | AAAAAA | 5860158 | 01/12/1999 | Pai et al. | | | |
| | ABBBBB | 5886992 | 03/23/1999 | Raatikainen et al. | | | |
| | ACCCCC | 5887134 | 03/23/1999 | Ebrahim | | | |
| | ADDDDD | 5890208 | 03/30/1999 | Kwon | | | |

| Examiner | |
|----------|--|
| | |
| | |

Date Considered

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U.S. Department of Commerce Patent and Trademark Office Attorney's Docket No. 10559-302US1

Application No. 10/070,006

Information Disclosure Statement by Applicant

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Gilbert Wolrich et al.

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Applicant

Group Art Unit 2186

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February 28, 2002

| U.S. Patent Documents | | | | | | | | |
|-----------------------|-----------|--------------------|---------------------|------------------|-------|----------|----------------------------|--|
| Examiner Initial | Desig. ID | Document Number | Publication Date | Patentee | Class | Subclass | Filing Date If Appropriate | |
| | AEEEEE | 5892979 | 04/06/1999 | Shiraki et al. | | | | |
| | AFFFF | 5905876 | 05/18/1999 | Pawlowski et al. | | | | |
| - | AGGGGG | 5905889 | 05/18/1999 | Wilhelm Jr. | | | | |
| · | АННННН | 5915123 | 06/22/1999 | Mirsky et al. | | | | |
| | AIIII | 5933627 | 08/03/1999 | Parady | | | | |
| | AJJJJ | 5937187 | 08/10/1999 | Kosche et al. | | | | |
| | AKKKKK | 5938736 | 08/17/1999 | Muller et al. | | | | |
| | ALLLLL | 5940612 | 08/17/1999 | Brady et al. | | | | |
| | AMMMMM | 5940866 | 08/17/1999 | Chisholm et al. | | | | |
| | ANNNN | 5946487 | 08/31/1999 | Dangelo | | | | |
| | A00000 | 5948081 | 09/07/1999 | Foster | | | | |
| | АРРРРР | 5951679 | 09/14/1999 | Anderson et al. | | | | |
| | AQQQQQ | 5958031 | 09/28/1999 | Kim | | | | |
| | ARRRRR | 5961628 | 10/05/1999 | Nguyen et al. | | | | |
| | ASSSSS | 5970013 | 10/19/1999 | Fischer et al. | | | | |
| | ATTTTT | 5978838 | 11/02/1999 | Mohamed et al. | | | | |
| | AUUUUU | 5983274 | 11/09/1999 | Hyder et al. | | | | |
| | AVVVVV | 5996068 | 11/30/1999 | Dwyer III et al. | | | | |
| | AWWWW | 6002881 | 12/14/1999 | York et al. | | | | |
| | AXXXXX | 6009515 | 12/28/1999 | Steele Jr. | | | | |
| | AYYYYY | 6012151 | 01/04/2000 | Mano | | | | |
| | AZZZZZ | 6014729 | 01/11/2000 | Lannan et al. | | | | |
| | AAAAAA | 6023742 | 02/08/2000 | Ebeling et al. | | | | |
| | ABBBBBB | 6029228 | 02/22/2000 | Cai et al. | | | | |
| | ACCCCCC | 6058168 | 05/02/2000 | Braband | | | | |
| | ADDDDDD | 6058465 | 05/02/2000 | Nguyen | | | | |
| | AEEEEEE | 6067585 | 05/23/2000 | Hoang | | | | |

Examiner Signature

Date Considered

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with

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U.S. Department of Commerce Patent and Trademark Office Attorney's Docket No. Application No. 10559-302US1 10/070,006

Information Disclosure Statement by Applicant

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Filing Date

(Use several sheets if necessary)

Group Art Unit 2186

(37 CFR §1.98(b))

U.S. Patent Documents Filing Date Publication Document Examiner If Appropriate Subclass Patentee Class Number Date Desig. ID Initial Ottinger AFFFFFF 05/30/2000 6070231 6072781 06/06/2000 Feeney et al. **AGGGGGG** Snyder. 6073215 06/06/2000 **АННННН** Sites et al. 6076158 06/13/2000 IIIIIA 6079008 06/20/2000 Clery III AJJJJJJ 6079014 06/20/2000 Papworth et al. AKKKKKK Ramakrishnan et al. 6085215 07/04/2000 **ALLLLLL** Van Doren et al. AMMMMMM 6085294 07/04/2000 Tausheck ANNNNNN 6092127 07/18/2000 Harriman et al. 6092158 07/18/2000 A000000 07/18/2000 Levy et al. **APPPPPP** 6092175 MacWilliams et al. 08/29/2000 **AQQQQQQ** 6112016 Steele Jr. 09/05/2000 6115811 ARRRRRR Klein et al. 6134665 10/17/2000 **ASSSSSS** Yasrebi **TTTTTTA** 6141689 10/31/2000 10/31/2000 Sherman AUUUUUU 6141765 Williams et al. 11/07/2000 AVVVVVV 6144669 Mehrotra et al. **WWWWWW** 6145054 11/07/2000 Narad et al. 6157955 12/05/2000 AXXXXXX Chin et al. 6160562 12/12/2000 AYYYYYY Harriman **AZZZZZZ** 6182177 01/30/2001 Spix et al. 02/27/2001 AAAAAAAA 6195676 Schnell 03/06/2001 ABBBBBBB 6199133 ACCCCCCC 03/18/2001 Prasanna 6201807 Kahle et al. 04/03/2001 6212542 ADDDDDDDD Nizar et al. 04/03/2001 **AEEEEEEE** 6212611 6216220 04/10/2001 Hwang **AFFFFFF**

Examiner Signature

Date Considered

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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U.S. Department of Commerce Patent and Trademark Office Attorney's Docket No. 10559-302US1

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Information Disclosure Statement
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Applicant
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Filing Date Group Art Unit February 28, 2002 2186

| U.S. Patent Documents | | | | | | | | | |
|-----------------------|-----------|-------------------|-----------------|-------------------|-------|----------|----------------------------|--|--|
| Examiner | | Document | Publication | Patentee | Class | Subclass | Filing Date If Appropriate | | |
| Initial | Desig. ID | Number 6223207 | Date 04/24/2001 | Lucovsky et al. | Class | Gubblass | Пиррорна | | |
| | AGGGGGG | | | | | | | | |
| | АНННННН | 6223238 | 04/24/2001 | Meyer et al. | | | | | |
| | AIIIIII | 6223279 | 04/24/2001 | Nishimura et al. | | | | | |
| | AJJJJJJ | 6247025 | 06/12/2001 | Bacon | | | | | |
| | AKKKKKKK | 6256713 | 07/03/2001 | Audityan et al. | | | | | |
| | ALLLLLL | 6272616 | 08/07/2001 | Fernando et al. | | | | | |
| | ммммммм | 6275505 | 08/14/2001 | O'Loughlin et al. | | | | | |
| | ANNNNNNN | 6279113 | 08/21/2001 | Vaidya | | | | | |
| | A0000000 | 6289011 | 09/11/2001 | Seo et al. | | | | | |
| ··- | АРРРРРРР | 6298370 | 10/02/2001 | Tang et al. | | | | | |
| | AQQQQQQQ | 6307789 | 10/23/2001 | Wolrich et al. | | | | | |
| | ARRRRRR | 6324624 | 11/27/2001 | Wolrich et al. | | | | | |
| | ASSSSSS | 6345334 | 02/05/2002 | Nakagawa et al. | | | | | |
| | ATTTTTTT | 6347344 | 02/12/2002 | Baker et al. | | | | | |
| | AUUUUUUU | 6351808 | 02/26/2002 | Joy et al. | | | | | |
| | AVVVVVV | 6356962 | 03/12/2002 | Kasper et al. | | | | | |
| | wwww | 6360262 | 03/19/2002 | Guenthner et al. | | | | | |
| | AXXXXXXX | 6373848 | 04/16/2002 | Allison et al. | | | | | |
| | AYYYYYYY | 6389449 | 05/14/2002 | Nemirovsky et al. | | | | | |
| | AZZZZZZZ | 6393483 | 05/21/2002 | Latif et al. | | | | | |
| | ААААААА | 6415338 | 07/02/2002 | Habot | | | | | |
| | ABBBBBBBB | 6426940 | 07/30/2002 | Seo et al. | | | | | |
| | ACCCCCCC | 6427196 | 07/30/2002 | Adiletta et al. | | | | | |
| | DDDDDDDDD | 6430626 | 08/06/2002 | Witkowski et al. | | | | | |
| | AEEEEEEE | 6434145 | 08/13/2002 | Opsasnick et al. | | | | | |
| | AFFFFFFF | 6463072 | 10/08/2002 | Wolrich et al. | | | | | |
| | AGGGGGGG | 6532509 | 03/11/2003 | Wolrich et al. | | | | | |

| Examiner Signature | Date Considered | |
|--------------------|-----------------|--|
| Examine Signature | | |
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U.S. Department of Commerce Patent and Trademark Office Attorney's Docket No. 10559-302US1

Application No. 10/070,006

Information Disclosure Statement by Applicant (Use several sheets if necessary)

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Filing Date

Applicant

Group Art Unit 2186

(37 CFR §1.98(b))

February 28, 2002

U.S. Patent Documents Filing Date Publication Document Examiner If Appropriate Class Subclass Patentee Date Initial Desig. ID Number Adler et al. 6552826 04/22/2003 **АННННННЕ** Wolrich et al. 6560667 05/06/2003 AIIIIIII Wolrich et al. 6577542 06/10/2003 AJJJJJJJ Wolrich et al. AKKKKKKKI 6584522 06/24/2003 Wolrich et al. ALLLLLLL 6587906 07/01/2003 Adiletta et al. MMMMMM 6606704 08/12/2003 Wolrich et al. 09/23/2003 ANNNNNNN 6625654 Wolrich et al. 09/30/2003 6629237 A00000000 Wolrich et al. 6631430 10/07/2003 APPPPPPPP Wolrich et al. 10/07/2003 AQQQQQQQQ 6631462 Wolrich et al. 12/09/2003 6661794 ARRRRRRRR Wolrich et al. 6667920 12/23/2003 ASSSSSSS Bernstein et al. 6668317 12/23/2003 ATTTTTTT 01/20/2004 Wolrich et al. AUUUUUUUU 6681300 02/17/2004 Wolrich et al. AVVVVVVV 6694380

Examiner Signature

Date Considered